

# LUCA FANELLI - CV

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## GENERAL INFORMATION

- Date of Birth: 20/04/1979
- Place of Birth: BARI (ITA)
- Citizenship: ITALIAN
- e-mail: luca.fanelli@ehu.eus
- webpage: <https://www.ikerbasque.net/es/luca-fanelli>
- orcid: 0000-0003-1714-1611
- Scopus ID: 6506885888
- spoken languages: Italian (native), English, French, Spanish, Portuguese

## ACADEMIC APPOINTMENTS

- Ikerbasque Research Professor; Distinguished Researcher at UPV/EHU; BCAM researcher, Bilbao (SPA) (since 2024)
- Ikerbasque Research Associate, Bilbao (SPA), 2020-2023
- Associate Professor, University of Rome "La Sapienza" (ITA), 2015-2020
- Permanent Researcher, University of Rome "La Sapienza" (ITA), 2011-2015
- "Ramón y Cajal" researcher, UPV/EHU Bilbao (SPA), 2010-2011

## EDUCATION

- PostDoc "Juan de la Cierva", UPV/EHU Bilbao (SPA), 2009
- PhD in Mathematics, University of Rome "La Sapienza" (ITA), 2008
- Degree in Mathematics, University of Bari (ITA), 2003
- PhD in Piano (first phase), Rotterdams Conservatorium, 2002
- Diploma in Piano, Ist. Braga, Teramo (ITA), 2000

## FELLOWSHIPS

7. Università di Bari (ITA), 1 month visiting professor 2025
6. Monash University Melbourne (AUS), "Robert Bartnik" Fellowship 2020
5. BCAM Bilbao (SPA), 2 months visiting researcher, 2017
4. IHES Paris (FRA), 1 month Special Trimester Fellowship, 2016
3. UAM Madrid (SPA), 6 months visiting professor, 2016
2. UAM Madrid (SPA), 6 months visiting professor, 2015
1. IHP Paris (FRA), 3 months Special Trimester Fellowship, 2009

## AWARDS

4. Teaching Prize - Science Faculty, Rome "Sapienza" 2020
3. Teaching Prize - Science Faculty, Rome "Sapienza" 2018
2. Teaching Prize - Science Faculty, Rome "Sapienza" 2016
1. Prize "Rendiconti di Matematica e delle sue Applicazioni" 2008

## HONORS

1. 2014 Finalist for ERC - Starting Grant call

## EDITORIAL BOARDS

2. 2024 Editor of the Special Issue "28 Cedy / 18 CMA SeMA" of the SeMA Journal (Springer)
1. 2015-2020 Editor for *Nonlinear Analysis: Theory, Methods & Applications*

## INVITED PHD DEFENSE COMMITTEES

9. 2026 Diego Sánchez (Paris - Sorbonne University)
8. 2025 Giovanna Andreucci (Rome "Sapienza")
7. 2024 Angelo Zanni (Rome "Sapienza")
6. 2024 Mahdi Zreik (Univ. Bordeaux)
5. 2023 Anatole Guérin (Orsay, Paris)
4. 2014 Biagio Cassano (Rome "Sapienza")
3. 2013 Victor José García Garrido (ICMAT Madrid)
2. 2012 Miren Zubeldia Plazaola (UPV/EHU Bilbao)
1. 2011 Pedro Perez Caro (UAM Madrid)

## GRANTS AS PRINCIPAL INVESTIGATOR

6. 2025 "Spectral theory and PDE for Quantum Mechanics (Spec4Q)", PI (UPV/EHU), € 152.500 (duration 36 months), funded by Agencia Estatal de Investigación (Spain)
5. 2022, "Spectral theory and PDE: Real and Fourier Analysis", PI (BCAM Bilbao), € 135.520 (duration 36 months), funded by Agencia Estatal de Investigación (Spain)
4. 2020 "New challenges in PDE: Fourier Analysis, Spectral Theory, and Calculus of Variations", PI (Rome "Sapienza"), € 15.000 (duration 18 months, funded by Rome "Sapienza")
3. 2014 "Dispersive Equations and Conservation Laws: Spectral Theory and Calculus of Variations", PI (Rome "Sapienza"), € 12.000 (duration 18 months,

funded by Rome "Sapienza"

2. 2013 "*Asymptotics of Evolution Problems*", PI (Rome "Sapienza"), € 12.000 (duration 18 months, funded by Rome "Sapienza")

1. 2012 "*Dispersive Dynamics: Fourier Analysis & Variational Methods*", local PI (Rome "Sapienza"), € 331.448 (duration 36 months, funded by MIUR)

### **MANAGERIAL ACTIVITY AND MEMBERSHIPS**

19. Since 2025: Member of the Panel of Mathematics for the AEI (Agencia Estatal de Investigación, Spain)

18. Since 2024: Coordinator of the "Innovation" section at the Academy of Medical Sciences of Bilbao

17. Committee of Mathematics PID 2023 call AEI (Agencia Estatal de Investigación, Spain)

16. Since 2022: Member of the Executive Committee of SEMA (Sociedad Española de Matemática Aplicada)

15. Since 2021, Member of the PhD Council in Mathematics and Statistics at UPV/EHU

14. Committee of Mathematics PID 2022 call AEI (Agencia Estatal de Investigación, Spain)

13. 2022 Reviewer for "Erwin Schrödinger Fellowships" (Austria)

12. 2022 Reviewer for "Rita Levi Montalcini - Young Researchers" (Italy)

11. 2022 Reviewer for "Prime" 2021-2022 Program (Germany)

10. 2021 Reviewer for ANVUR - VQR 2015-2019 (Italy)

9. 2021 Reviewer for STARS Program, University of Padova (Italy)

8. 2020 Reviewer for research evaluation Charles University (Czech Republic)

7. 2020 Panel of Experts for "Juan de la Cierva" & "Ramón y Cajal" (Spain)

6. 2019 Projects Reviewer for CONICYT (Chile)

5. 2017 - 2020 Member of OFA Committee at Rome "Sapienza" (Italy)

4. 2017 - 2020 Member of Monitoring Committee at Rome "Sapienza" (Italy)

3. 2017 - 2020 Member of PhD Council in Math. At Rome "Sapienza" (Italy)

2. 2016 Reviewer for ANVUR - VQR 2011-2014 (Italy)

1. 2016 Projects Reviewer for MINECO (Spain)

### **DISSEMINATION ACTIVITY**

18. 2026 Ciclo "Matemáticas en la vida cotidiana" - charla (Bilbao)

17. 2026-2027 Ciclo MMS - conciertos narrados

16. 2026 Thirs Music Competition "Villa de Bilbao"
15. 2025, EHU Podcast
14. 2025, Aula de Cultura de El Correo
13. 2025, Interview for the newspaper "El Correo": "Matemáticos y artistas tienen que liberarse del elitismo" [LINK](#)
12. 2025, Interview for the newspaper "Bilbao": Music influenced and keep influencing mathematical research [LINK](#)
11. 2025, Bari University: seminar with title "DO-RE-MI-FA-SOL-LA-PI: da Pitagora all'equazione delle onde"
10. 2025 BCAM Naukas "pi"-day: seminar with title "DO-RE-MI-FA-SOL-LA-PI: porque las notas son siete?"
- "9. 2025: Second Music Competition "Villa de Bilbao"
8. 2025. Mathematical Visit at School (Leioa Ikastola)
7. 2025. Mathematical Visit at School (Ibarrekolanda BHI)
6. 2024: Faculty Conference at the Science Faculty of UPV/EHU: "Mathematical Music: an history of the Wave Equation"
5. 2024. Mathematical Visit at School (Durango BHI)
4. 2024: Zientzia Astea UPV/EHU: Conferencia-Concierto "Debussy: Innovación Matemática y Revolución Musical", Musikene, San Sebastián
3. 2024: Zientzia Astea UPV/EHU: Conferencia-Concierto "Debussy: Innovación Matemática y Revolución Musical", Conservatorio "Juan Crisóstomo de Arriaga", Bilbao
2. 2024: Musical Competition "Villa de Bilbao"
1. 2024: Mathematical Visit at School (Escolapios, Bilbao)
0. Artistic Director of the Dissemination Project "2M: Music & Mathematics"

#### **ORGANIZATION/SCIENTIFIC COMMITTEES OF CONGRESSES**

27. 2026, "Recent Advances in PDE and Mathematical Physics", Puerto Morelos (MEX)
26. 2026, "40 Years of Analysis & PDE in Bilbao", Bilbao, Spain
25. 2025, "Harmonic Analysis and PDE: new trends", Sapporo (JAP)
24. 2025, Second Spring School on Spectral Theory, Fourier Analysis and PDE, Bilbao (SPA)
23. 2025, "Recent Advances in PDE and Mathematical Physics", Oaxaca (MEX)
22. 2024, "Mathematical Trends in Operator Theory, PDE and Mathematical Physics", México City (MEX)

21. 2024, "XXI Cedy, Congreso de Ecuaciones Diferenciales y Aplicaciones", Bilbao (SPA)
20. 2024, Second Spring School on Spectral Theory, Fourier Analysis and PDE, Bilbao (SPA)
19. 2023, 1st Colombian Workshop in Dispersive PDE, Manizales (COL)
18. 2023, Summer School on Unique Continuation Properties, CIEM Castro Urdiales (SPA)
17. 2023, "Harmonic Analysis and Differential Equations: New Questions and Challenges" (in honor of Luis Vega), Bilbao (SPA)
16. 2019 "X-Itinerant workshop on PDE" Rome (ITA)
15. 2019 "Nonlinear Dispersive PDE: Solitons & related topics" Mittag-Leffler (SWE)
14. 2018 "IX-Itinerant workshop on PDE" Bordeaux (FRA)
13. 2018 "ERC workshop on Nonlinear Dispersive PDE" Rome (ITA)
12. 2017 "VIII-Itinerant workshop on PDE" Bilbao (SPA)
11. 2017 "School Harmonic Analysis, Spectral Theory & Dispersive PDE" Rome (ITA)
10. 2016 "VII-Itinerant workshop on PDE" Nice (FRA)
9. 2015 "VI-Itinerant workshop on PDE" Trieste (ITA)
8. 2014 "V-Itinerant workshop on PDE" Pisa (ITA)
7. 2014 "Relativistic and non relativistic models in Quantum Mechanics" Rome (ITA)
6. 2014 "Summer School: KAM theory & Dispersive PDE" Rome (ITA)
5. 2013 "IV-Itinerant workshop on PDE" Rome (ITA)
4. 2013 "Dispersive PDE: Models & Dynamics" Pisa (ITA)
3. 2012 "III-Itinerant workshop on PDE" Bilbao (SPA)
2. 2011 "II-Itinerant workshop on PDE" Bayonne (FRA)
1. 2010 "Itinerant workshop on PDE" Bayonne (FRA)

#### **INVITED SPEAKER AT CONGRESSES AND SCHOOLS**

57. New Challenges for Dirac Operators, Madrid 2026
56. Hardy Inequalities in Discrete and Continuum Settings, Oberwolfach 2025
55. *Nonlinear Waves and Hamiltonian PDE*, Courmayeur (ITA) 2025
54. VI Workshop on Nonlinear Dispersive PDE, Sao Paulo (BRA) 2024
53. MI-BCAM Analysis of PDE Meeting, Edinburgh (SCO) 2024
52. *Mathematical Trends in Operator Theory, PDE and Mathematical Physics*,

- Mexico City (MEX) 2024
51. EDP e Dintorni, Bari (ITA) 2024
50. *Quantum Dynamics and Spectral Theory*, Mittag-Leffler (SWE) 2024.
49. *Dispersion and Geometry*, Padova (ITA) 2024
48. *Nonlinear Waves and Hamiltonian PDE*, Courmayeur (ITA) 2024
47. *1st Colombian Workshop in Dispersive PDE*, Manizales (COL) 2023
46. *Atlantic Conference in PDE*, Lisbon (POR) 2023
45. *2nd Harmonic Analysis Workshop in Seoul*, Seoul (COR) 2023
44. *Singularities, asymptotics and limiting models*, Bari (ITA) 2023
43. *Nonlinear Waver and Hamiltonian PDE*, La Thuile (ITA) 2023
42. *Zero-Range and Point-Like Singular Perturbations: For a Spillover to Analysis*, PDE and Differential Geometry, Oberwolfach (GER) 2022
41. *V Workshop on Nonlinear Dispersive PDE*, Minas Gerais (BRA) 2022
40. *New trends in Mathematics of Dispersive, Integrable and Nonintegrable Models in Fluids*, Banff (CAN) 2022
39. *Waves in Venice*, Ca' Foscari University Venice (ITA) 2022
38. *Mathematical aspects of the Physics with non-self-Adjoint Operators*, Banff (CAN) 2022
37. *Nonlinear Waver and Hamiltonian PDE*, La Thuile (ITA) 2022
36. *Harmonic Analysis and Dispersive PDEs: problems & progresses*, Melbourne (AUS) 2020
35. *Second International Conference on Applications of Mathematics to Nonlinear Sciences* Pokhara (NEP) 2019
34. *Mathematical and Theoretical Physics Special Week in Waseda University*, Tokio (JAP) 2019
33. *IV-Workshop on Nonlinear Dispersive Eqns*, Rio de Janeiro (BRA) 2019
32. *Nonlinear Dispersive Waves*, Erice (ITA) 2019
31. *Workshop in Harmonic Analysis*, IISER Bhopal (IND) 2019
30. *PDEs in Bari*, Bari (ITA) 2018
29. *Nonlinear Dispersive Equations (Sat. of ICM Rio)*, Florianopolis (BRA) 2018
28. *INdAM Workshop on Dispersive Equations*, Cortona (ITA) 2018
27. *Mathematical aspects of the Physics with non self-adjoint operators*, CIRM Luminy (FRA) 2017
26. *BCAM Summer School on Harmonic Analysis and PDEs*, Bilbao (SPA) 2017
25. *Sapporo Symposium on Partial Differential Equations*, Sapporo (JAP) 2017

24. *III-Workshop on Nonlinear Dispersive Equations*, Campinas (BRA) 2017
23. *Contemporary trends in the Mathematics of QM*, Roma (ITA) 2016
22. *Congreso Latinoamericano de Matematicos: special session speaker (Nonlinear Dispersive Equations)*, Barranquilla (COL) 2016
21. *New trends in Partial Differential Equations*, Pisa (ITA) 2016
20. *Equadiff 2015: special session speaker (nonlinear waves)*, Lyon (FRA) 2015
19. *YFAW 2015: Young Functional Analysis Workshop*, London (UK) 2015
18. *Congress Espalia 2015*, Roma (ITA) 2015
17. *II-Workshop on Nonlinear Dispersive Equations*, Campinas (BRA) 2015
16. *Three days on analysis and PDEs*, Madrid (SPA) 2014
15. *Joint meeting UMI-RSME-SCM-SEMA-SIMAI 2014: special session speaker (Dispersive PDE's)*, Bilbao (SPA) 2014
14. *Asymptotic Analysis of Dispersive PDE*, Pienza (ITA) 2014
13. *Linear and Nonlinear PDE*, Pisa (ITA) 2013
12. *Mathematical Congress of the Americas 2013: special session speaker (Nonlinear Dispersive PDE)*, Guanajuato (MEX) 2013
11. *Segundo encuentro conjunto RSME-SMM (Real Sociedad Matematica Espanola - Sociedad Matematica Mexicana): special session speaker (Partial Differential Equations)*, Málaga (SPA) 2012
10. *Convegno inaugurale del Laboratorio Fibonacci*, Pisa (ITA) 2012
9. *Analytical and Numerical Advances around Schrödinger Equations*, Toulouse (FRA) 2012
8. *ERC Workshop in Rome*, Roma (ITA) 2012
7. *Centennial of the RSME (Real Sociedad Matematica Espanola) foundation: special session speaker (Linear and Nonlinear PDE)*, Avila (SPA) 2011
6. *Young Researchers of the RSME (Real Sociedad Matematica Espanola): special session speaker (Mathematical Analysis)*, Soria (SPA) 2011
5. *XXXVII-Journées de EDP*, Port D'Albret (FRA) 2010
4. *Three dispersive days in Milan*, Milan (ITA) 2009
3. *Equations dispersives sur les varietees*, Orleans (FRA) 2008
2. *Jornadas de Ecuaciones a las Derivadas Parciales*, Granada (SPA) 2008
1. *INdAM International Workshop MAQSA: Multiscale Analysis for Quantum Systems and Applications*, Roma (ITA) 2007

#### **INVITED LECTURES (PH.D. AND SUMMER SCHOOLS)**

6. Bari University - *An introduction to dispersive PDE* 2024
5. Bilbao Summer School HAPDE 2024: *Uniform Resolvent Estimates & Applications* 2024
4. IISER Bhopal - NCM School in Harmonic Analysis, *Uniform Resolvent Estimates & Applications* 2019
3. Tokyo Waseda - Summer School in Mathematical & Theoretical Physics, *Uniform resolvent Estimates & Applications* 2019
2. BCAM Bilbao - School on Harm. Anal. & PDEs, *About the Uncertainty Principle* 2017
1. Universidad Autónoma de Madrid, *Spanish Lectures on NLS* 2010

#### INVITED SEMINARS

45. Ciriál Identities: From Newton to Dirac, Granada 2026
44. Relativistic Virial Identities, Institute of Applied and Computational Physics, Beijing 2026.
43. Intertwining operators beyond the Stark Effect, Universitat Valencia 2025
42. Scattering in the energy space for the 2D defocusing nonlinear Klein-Gordon equation with a magnetic field, Hagen University 2024
41. About Schrödinger and Dirac operators with scaling-critical potentials, Universidad Nacional de Colombia - Bogota (COL), 2022
39. About Schrödinger and Dirac operators with scaling-critical potentials, Universidad de Cantabria, Santander (SPA) 2021
38. About Schrödinger and Dirac operators with scaling-critical potentials, IMPA, Rio de Janeiro, (BRA) 2021
37. Uniform Resolvent Estimates & Applications, Lyon Univ. (FRA) 2021
36. Uniform Resolvent Estimates & Applications, IISER Mohali (IND) 2021
35. Uniform Resolvent Estimates & Applications, BCAM Bilbao (SPA) 2020
34. About the Uncertainty Principle, U. Politécnica Madrid (SPA) 2019
33. About the Uncertainty Principle, SISSA - Trieste (ITA) 2018
32. *Frequency-dependent decay of Schrödinger groups*, UPV/EHU Bilbao (SPA) 2017
31. *Frequency-dependent decay of Schrödinger groups*, IHES (FRA) 2017
30. *Sul principio di indeterminazione*, Univ. Roma Tor Vergata (ITA) 2016
29. *Sul principio di indeterminazione*, Univ. Catania (ITA) 2015
28. *Spherical Schrödinger hamiltonians and time decay*, Nuclear Physics Institute AS CR - Řež (CZK) 2015

27. *Sharp gaussian decay for solution to magnetic Schrödinger equations*, UPV/EHU Bilbao (SPA) 2014
26. *Operatori di Laplace-Beltrami e dispersione*, Univ. Bari (ITA) 2014
25. *Operadores de Laplace-Beltrami y dispersión*, Universidad Nacional de Colombia - Medellín (COL) 2014
24. *Operadores de Laplace-Beltrami y dispersión*, Universidad Nacional de Colombia - Bogotá (COL) 2014
23. *Disuguaglianze di Hardy relativistiche*, Rome "Sapienza" (ITA) 2013
22. *Carleman estimates and necessary conditions for the existence of waveguides*, Univ. Bordeaux (FRA) 2012
21. *Waveguides o Dancer solutions: continuazione unica dall'infinito*, Rome "Sapienza" (ITA) 2012
20. *Sharp time decay for scaling invariant electromagnetic Schrödinger flows*, Univ. Chicago (USA) 2012
19. *Proprietà dispersive per operatori di Schrödinger con campi magnetici*, Univ. Pisa (ITA) 2011
18. *Soluzioni di tipo waveguide per l'equazione di Schrödinger stazionaria*, Univ. Bari (ITA) 2011
17. *Continuación unica para waveguides*, Univ. Logroño (SPA) 2011
16. *Dinamiche dispersive*, Rome "Sapienza" (ITA) 2011
15. *Unique continuation at infinity and sharp decay of waveguides*, Czech Technical University - Prague (CZK) 2011
14. *Weak dispersion for the Schrödinger equation*, Nuclear Physics Institute AS CR - Řež (CZK) 2011
13. *Carleman estimates and necessary conditions for the existence of waveguides*, Univ. Birmingham (UK) 2011
12. *Dispersive properties of the magnetic Dirac flow*, UAM Madrid (SPA) 2010
11. *Dispersive properties of the magnetic Dirac equation*, UNAM (MEX) 2010
10. *Dispersive phenomena for electromagnetic Schrödinger operators*, BCAM - Bilbao (SPA) 2010
9. *Identità viriale magnetica e stime dispersive*, Rome "Sapienza" (ITA) 2009
8. *Analisi algebrica dell'equazione di Dirac*, Univ. Bari (Italy) 2009
7. *Dispersive properties of the Dirac equation*, Univ. Besançon (FRA) 2008
6. *El aspecto dispersivo de la ecuacion de Dirac*, UPV/EHU Bilbao (SPA) 2007
5. *Sull'equazione di Dirac con potenziale magnetico*, Univ. L'Aquila (ITA) 2007

4. *Tecniche analitiche per l'equazione di Schrödinger nonlineare*, Univ. Bari (ITA) 2007
3. *Aspetti matematici dell'equazione di Schrödinger nonlineare*, Rome "Sapienza" (ITA) 2007
2. *Dispersive properties of Dirac and Wave Equations with electromagnetic potentials*, Univ. Pisa (ITA) 2006
1. *Dispersive estimates for the Dirac and Wave Equations with electric and electromagnetic potentials*, Univ. Swansea (UK) 2005

### TEACHING

19. Introduction to NLS (30H), BCAM Severo Ochoa Course 2025
18. Introduction to NLS (PhD 16H), Bari Univ. 2025
17. Real Analysis (Mathematics degree 90H) Rome "Sapienza" 2020
16. PDE (Master in Mathematics 48H) Rome "Sapienza" 2019
15. Real Analysis (Mathematics degree 84H) Rome "Sapienza" 2019
14. Analysis (Physics degree 90H) Rome "Sapienza" 2018
13. Calculus (Mathematics degree 90H) Rome "Sapienza" 2017
12. Differential Calculus (Informatics degree 60H) Rome "Sapienza" 2017
11. Analysis (Physics degree 90H) Rome "Sapienza" 2016
10. Differential Calculus (Informatics degree 60H) Rome "Sapienza" 2016
9. Vector Cálculus (Mathematics Degree 48H) UAM Madrid 2016
8. Differential Calculus (Informatics degree 60H) Rome "Sapienza" 2015
7. Analysis (Physics degree 90H) Rome "Sapienza" 2015
6. Vector Cálculus (Mathematics Degree 48H) UAM Madrid 2015
5. Real Analysis (Mathematics degree 72H) Rome "Sapienza" 2014
4. Real Analysis (Mathematics degree 72H) Rome "Sapienza" 2013
3. Analysis (Physics degree 12H) Rome "Sapienza" 2012
2. Fourier Anal. & PDE's (Master in Mathematics 10H) Bari University 2010
1. Vector Calculus (Mathematics degree 30H) UPV/EHU Bilbao

### POSTDOC SUPERVISING

3. Ying Wang, BCAM, Bilbao, 2023 - to date
2. Nico Michele Schivaone, JdC at BCAM Bilbao, 2022 - 2024
1. Federico Cacciafesta, Rome "Sapienza" 2014-2017

### PHD STUDENTS SUPERVISING

7. Claudia Peña, UPV/EHU Bilbao 2023 – (in course)
6. Diego Forletta (UPV/EHU - Rome "Sapienza" – (in course)
5. Sergio Moroni, UPV/EHU Bilbao, 2023 – (in course)
4. Pablo Merino, UPV/EHU Bilbao, 2023 – (in course)
3. Lorenzo D'Arca, Rome "Sapienza" 2022 – (in course)
2. Nico Michele Schivaone, Rome "Sapienza" 2018-2021
1. Lucrezia Cossetti, Rome "Sapienza" 2014-2017

#### **MASTER STUDENTS SUPERVISING**

18. Niccolò Maldera, Bari University (2024)
17. Lorenzo D'Arca, Rome "Sapienza" 2022
16. Giorgio Cialdea, Rome "Sapienza" University 2022
15. Francesca Rosati, Rome "Sapienza" University 2020
14. Silvia Leonoro, Rome "Sapienza" University 2020
13. Michele Ferrante, Rome "Sapienza" University 2020
12. Serena Rocci, Rome "Sapienza" University 2020
11. Andrea Borghesi, Rome "Sapienza" University 2020
10. Daniela Salotto, Rome "Sapienza" University 2019
9. Giusi Fortuna, Rome "Sapienza" University 2018
8. Emanuele Di Vico, Rome "Sapienza" University 2018
7. Flavio Serva, Rome "Sapienza" University 2018
6. Beatrice Signorello, Rome "Sapienza" University 2017
5. Antonio Franceschini, Rome "Sapienza" University 2016
4. Valentina Taloni, Rome "Sapienza" University 2015
3. Valentina Soccorso, Rome "Sapienza" University 2014
2. Giulia Gasparini, Rome "Sapienza" University 2014
1. Giuseppe Negro, University of Bari 2012

#### **UNDERGRADUATE STUDENTS SUPERVISING**

29. Lorenzo D'Arca, Rome "Sapienza" 2020
28. Carlo Lucchetti, Rome "Sapienza" 2020
27. Rocco Brunelli, Rome "Sapienza" 2020
26. Irma D'Angelico, Rome "Sapienza" 2020
25. Benedetta Liberatori, Rome "Sapienza" 2020
24. Giorgio Cialdea, Rome "Sapienza" 2020
23. Priscilla Bonanni, Rome "Sapienza" 2020

22. Riccardo Lanni, Rome "Sapienza" 2020
21. Lorenzo Graziani, Rome "Sapienza" 2019
20. Paola Zaccaria, Rome "Sapienza" 2019
19. Michele Ferrante, Rome "Sapienza" 2018
18. Alessandra Massimi, Rome "Sapienza" 2018
17. Carlotta Petrucci, Rome "Sapienza" 2018
16. Giacomo Colarieti, Rome "Sapienza" 2016
15. Riccardo Rieti, Rome "Sapienza" 2016
14. Cristina Tartaglione, Rome "Sapienza" 2016
13. Sergio D'Ippolito, Rome "Sapienza" 2016
12. Francesca Mancini, Rome "Sapienza" 2016
11. Raoul Vetere, Rome "Sapienza" 2016
10. Alessandro Vannini, Rome "Sapienza" 2015
9. Tommaso Fougier, Rome "Sapienza" 2015
8. Alessandra Golizadeh, Rome "Sapienza" 2015
7. Beatrice Signorello, Rome "Sapienza" 2014
6. Luca Tedesco, Rome "Sapienza" 2014
5. Stefano Pareti, Rome "Sapienza" 2014
4. Roberto Mastropietro, Rome "Sapienza" 2014
3. Angela Corasaniti, Rome "Sapienza" 2014
2. Filomena Casseri, Rome "Sapienza" 2013
1. Matteo Agostini, Rome "Sapienza" 2013

## PUBLICATIONS & PREPRINTS

	Author(s)	Title	Journal
64	L. Fanelli, Y. Song, Y. Wang, J. Zheng, R. Zhou	Magnetic Uncertainty in Variable Geometry	Submitted (2026)
63	L. Cossetti, <b>L. Fanelli</b> , F. Pizzichillo	Relativistic Virial Operators	Submitted (2026)
62	U. Das, <b>L. Fanelli</b> , L. Roncal	Quantitative Landis-type results for Dirac Operators	Submitted (2026)

61	L. D'Arca, <b>L. Fanelli</b> , V. Franceschi, D. Prandi,	Unweighted Hardy Inequalities on the Heisenberg Group and in Step-Two Carnot Groups	Submitted (2026)
60	<b>L. Fanelli</b> , X. Su, Y. Wang, J. Zhang, J. Zheng	Intertwining operators beyond the Stark Effect	Comm. Math. Phys. (2026)
59	<b>L. Fanelli</b> , F. Pizzichillo	A relativistic Hary-type inequality with minimizers	J. Phys. A (2025)
58	M. Alejo, L. Cossetti, <b>L. Fanelli</b> , C. Muñoz, N. Valenzuela	Error bounds for Physics Informed Neural Networks in Nonlinear Schrödinger equations placed on unbounded domains	Submitted (2025)
57	<b>L. Fanelli</b> , H. Mizutani, L. Roncal, N. Schiavone	Uniform resolvent estimates, smoothing effects and spectral stability for the Heisenberg sublaplacian	J. Analyse Mathématique (2026)
56	<b>L. Fanelli</b> , H. Kovarik	Quantitative Hardy inequality for magnetic Hamiltonians	Comm. Part. Diff. Eq. (2024)
55	L. Cossetti, <b>L. Fanelli</b> , D. Krejcirik	Uniform Resolvent Estimates and absence of eigenvalues for biharmonic operators with complex potentials	J. Func. Anal. <b>287</b> (2024)
54	J.A. Barcelo, B. Cassano, <b>L. Fanelli</b>	Unique Continuation Properties from one time for Hyperbolic Schrödinger Equations	SIAM Journal on Math. Anal. <b>56</b> (2024), 7417–7438

53	<b>L. Fanelli</b> , H. Mizutani, L. Roncal, N. Schiavone	Non self-adjoint perturbations of the Heisenberg sublaplacian	Journal of Fourier Analysis and Applications (2025)
52	L. Cossetti, <b>L. Fanelli</b> , N. Schiavone	Recent developments in the spectral theory for non self-adjoint Hamiltonians	Springer Proc. Math. & Stat. (2024)
51	<b>L. Fanelli</b> , J. Zhang, J. Zheng	Uniform Resolvent Estimates for Magnetic Schrödinger Operators in 2D	Int. Math. Res. Not. (2023)
50	<b>L. Fanelli</b> , L. Roncal	Kato-Ponce Inequalities for Fractional Sublaplacians	Bull. London Math. Soc. <b>55</b> (2022)
49	<b>L. Fanelli</b> , J. Zhang, J. Zheng	Dispersive Estimates for 2D Wave Equations with critical magnetic potentials	Advances in Mathematics <b>400</b> (2022)
48	J.A. Barcelo, B. Cassano, <b>L. Fanelli</b>	Mass Propagation for Electromagnetic Schrödinger Evolutions	Nonl. Anal.: Theory, Meth. Appl. <b>217</b> (2022)
47	B. Cassano, L. Cossetti, <b>L. Fanelli</b>	Improved Hardy-Rellich Inequalities	Comm. Pure Appl. Anal. <b>21</b> (2022), 867– 889
46	P. D'Ancona, <b>L.</b> <b>Fanelli</b> , D. Krejcirik, N. Schiavone	Localization of eigenvalues for non-self- adjoint Dirac and Klein- Gordon operators	Nonl. Anal.: Theory, Meth. Appl. (2022)

45	B. Cassano, L. Cossetti, <b>L. Fanelli</b>	Spectral Enclosures for Damped Elastic Wave Equation	Math. In Engineering <b>4</b> (2021)
44	B. Cassano, L. Cossetti, <b>L. Fanelli</b>	Eigenvalue bounds and spectral stability of Lamé Operators with complex potentials	J. Diff. Eq. <b>298</b> (2021), 528–559
43	M. Alejo, <b>L. Fanelli</b> , C. Muñoz	Stability and instability of breathers in the U(1) Sasa-Satusuma and Nonlinear Schrödinger models	Nonlinearity <b>34</b> (2021)
42	P. D’Ancona, <b>L. Fanelli</b> , N. Schiavone	Eigenvalue-bounds for non self-adjoint Dirac Operators	Math. Annalen (2021)
41	M. Alejo, <b>L. Fanelli</b> , C. Muñoz	Review on the stability of Peregrine and related breathers	Frontiers Phys. 2020, <b>8</b> , 591995
40	L. Cossetti, <b>L. Fanelli</b> , D. Krejcirik	Absence of eigenvalues of Dirac and Pauli Hamiltonians	Comm. Math. Phys. <b>379(2)</b> (2020), pp. 633-691.
39	M. Alejo, <b>L. Fanelli</b> , C. Muñoz	The Akhmediev Breather is unstable	<u>Sao Paulo Journal of Mathematical Sciences</u> <b>13(2)</b> (2019), 391-401

38	<b>L. Fanelli</b> , D. Krejcirik	Location of eigenvalues of three-dimensional non-self-adjoint Dirac operators	Letters in Mathematical Physics <b>109</b> n. 7 (2019), 1473-1485
37	<b>L. Fanelli</b> , D. Krejcirik, A. Laptev, L. Vega	On the improvement of the Hardy inequality due to singular magnetic fields	Comm. PDE <b>45</b> n. 9 (2020), pp. 1202--1212
36	F. Cacciafesta, <b>L. Fanelli</b>	Weak dispersive estimates for fractional Aharonov-Bohm-Schrödinger groups	Dynamics of PDE's <b>16</b> n. 1 (2019), pp. 95-103
35	L. Cossetti, <b>L. Fanelli</b> , F. Linares	Uniqueness results for Zakharov-Kuznetsov equation	Comm. PDE <b>44</b> n. 6 (2019), pp. 504-544
34	<b>L. Fanelli</b> , D. Krejcirik, L. Vega	Absence of eigenvalues of two-dimensional magnetic Schrödinger operators	Journ.. Func. Anal. <b>75</b> (2018), pp. 2453-2472.

33	<b>L. Fanelli</b> , V. Felli, M. Fontelos, A. Primo	Ferquency-dependent time decay of Schrödinger flows	Journ. Spectral Theory <b>8</b> (2018), pp. 509-521.
32	<b>L. Fanelli</b> , D. Krejclrik, L. Vega	Spectral stability of Schrödinger operators with subordinated complex potentials	Journ. Spectral Theory <b>8</b> (2018), pp. 575-604.
31	F. Cacciafesta, <b>L. Fanelli</b>	Dispersive Estimates for the Dirac Equation in a Aharonov-Bohm field	J. Diff. Eq. <b>263</b> (2017), pp. 4382-4399
30	<b>L. Fanelli</b>	Spherical Schrödinger Hamiltonians: Spectral Analysis and Time Decay	Springer INdAM Series <b>18</b> (2017), pp. 135-151
29	B. Cassano, <b>L. Fanelli</b>	Gaussian decay of Harmonic Oscillators and related models	J. Math. Analysis and Applications <b>456</b> (2017), pp. 214-228.

28	J. Barcelo, <b>L. Fanelli</b> , A. Ruiz, M. Vilela, N. Visciglia	Resolvent and Strichartz estimates for elastic wave equations	Appl. Math. Letters, <b>49</b> (2015), pp. 33-41
27	<b>L. Fanelli</b> , G. Grillo, H. Kovarik,	Improved time-decay for a class of scaling-critical Schrödinger flows	J. Func. Anal. <b>269</b> (2015), pp. 3336- 3346
26	<b>L. Fanelli</b> , V. Felli, M. Fontelos, A. Primo	Time decay of scaling invariant electromagnetic Schrödinger equations on the plane	Comm. Math. Phys. <b>337</b> (2015), pp. 1515-1533
25	B. Cassano, <b>L. Fanelli</b>	Sharp Hardy Uncertainty principle and gaussian profiles for electromagnetic Schrödinger evolutions	Trans. AMS <b>363</b> (2015), pp. 2213-2233
24	<b>L. Fanelli</b> , L. Vega, N. Visciglia	Relativistic Hardy Inequalities in Magnetic Fields	J. Stat. Phys. <b>154</b> (2014), pp. 866-876
23	J. Barcelo, <b>L. Fanelli</b> , S. Gutierrez, A. Ruiz. M. Vilela	Hardy uncertainty principle and unique continuation for magnetic Schrödinger evolutions	J. Func. Anal. <b>264</b> (2013), pp. 2386-2415

22	J. Barcelo, <b>L. Fanelli</b> , A. Ruiz. M. Vilela	A priori estimates for the Helmholtz equation with electromagnetic potentials in exterior domains	Proc. Royal Soc. Edinburgh Sec. A <b>143</b> (2013), pp.1-19
21	N. Arrizabalaga, <b>L. Fanelli</b> , A. Garcia	On the lack of dispersion for a class of magnetic Dirac flows	J. Evol. Eq. <b>13</b> (2013), pp. 89-106
20	<b>L. Fanelli</b> , V. Felli, M. Fontelos, A. Primo	Time dispersion for scaling invariant electromagnetic Schrödinger flows	Comm. Math. Phys. <b>324</b> (2013) pp. 1033-1067
19	<b>L. Fanelli</b> , N. Visciglia	The lack of compactness in the Sobolev-Strichartz inequalities	J. Math. Pures Appl. <b>99</b> (2013), pp.309-320
18	<b>L. Fanelli</b> , L. Vega, N. Visciglia	Existence of maximizers for Sobolev-Strichartz inequalities	Adv. Math. <b>3</b> (2012), pp. 1912-1923
17	L. Escauriaza, <b>L. Fanelli</b> , L. Vega	Carleman estimates and necessary conditions for the existence of waveguides	Indiana Univ. Math. J. <b>61</b> (2012), pp. 15-30

16	N. Boussaid, P. D'Ancona, <b>L. Fanelli</b>	Virial identity and weak dispersion for the magnetic Dirac equation	J. Math. Pures Appl. <b>95</b> (2011) pp. 137-150
15	<b>L. Fanelli</b> , L. Vega, N. Visciglia	On the existence of maximizers for a family of restriction theorems	Bull. London Math. Soc. <b>4</b> (2011) pp. 811-817
14	<b>L. Fanelli</b> , A. Garcia	Counterexamples to Strichartz estimates for the magnetic Schrödinger equation	Comm. Cont. Math. <b>2</b> (2011) pp. 213-234
13	<b>L. Fanelli</b> , S. Lucente, E. Montefusco	Semilinear Hamiltonian Schrödinger systems	Int. J. Dyn. Syst. Diff. Eq. <b>3</b> (2011) pp.401-422
12	<b>L. Fanelli</b>	Electromagnetic Schrödinger flow: multiplier methods for dispersion	Proceedings 37th Journées EDP, Port D'Albret, June 2010
11	P. D'Ancona, <b>L. Fanelli</b> , L. Vega, N. Visciglia	Endpoint Strichartz estimates for the magnetic Schrödinger equation	J. Func. Anal. <b>258</b> (2010) pp. 3227-3240

10	P. D'Ancona, <b>L. Fanelli</b>	Smoothing estimates for the Schrödinger equation with unbounded potentials	J. Diff. Eq. <b>246</b> (2009) pp. 4552-4567
9	<b>L. Fanelli</b>	Semilinear Schrödinger equation with time dependent coefficients	Math. Nach. <b>28</b> (2009) pp. 976-994
8	<b>L. Fanelli</b>	Non-trapping magnetic fields and Morrey-Campanato estimates for Schrödinger operators	J. Math. Anal. Appl. <b>357</b> (2009) pp. 1-14
7	<b>L. Fanelli</b>	Dispersive Equations in Quantum Mechanics	Rend. Mat. Appl. <b>28</b> (2009) pp. 237-384
6	<b>L. Fanelli</b> , L. Vega	Magnetic virial identities, weak dispersion and Strichartz estimates	Math. Annalen <b>2</b> (2009) pp. 249-278
5	P. D'Ancona, <b>L. Fanelli</b>	Strichartz and smoothing estimates for dispersive equations with magnetic potentials	Comm. Part. Diff. Eq. <b>33</b> (2008) pp. 1082-1112

4	P. D'Ancona, <b>L. Fanelli</b>	Decay estimates for the wave and Dirac equations with a magnetic potential	Comm. Pure Appl. Math. <b>60</b> (2007) pp. 357-392
3	<b>L. Fanelli</b> , E. Montefusco	On the blow-up threshold for weakly coupled nonlinear Schrödinger equations	J. Phys. A <b>40</b> (2007) pp. 14139-14150
2	P. D'Ancona, <b>L. Fanelli</b>	$L_p$ - boundedness of the wave operator for the one dimensional Schrödinger operator	Comm. Math. Phys. <b>268</b> (2006) pp. 415-438
1	<b>L. Fanelli</b> , S. Lucente	The critical case for a semilinear weakly hyperbolic equation	El. J. Diff. Eq. <b>101</b> (2004) pp. 1-13

